

REPORT SUMMARY

Port of Iberia, Louisiana

Final Feasibility Report

S.1 STUDY INFORMATION

STUDY AUTHORITY

The Port of Iberia, Louisiana Study was conducted in accordance with Section 431 of the Water Resources Development Act (WRDA) of 2000, Public Law 106-541, dated 11 December 2000, which reads as follows:

SEC. 431. IBERIA PORT, LOUISIANA.

The Secretary shall conduct a study to determine the feasibility of carrying out a project for navigation, Iberia Port, Louisiana.

In May 2001, the Port of Iberia (POI) requested that the Corps of Engineers (USACE) consider deepening the access channels from the port to the Gulf of Mexico. Reconnaissance study efforts were initiated in 2001 and a reconnaissance report was completed in August 2002 recommending further Federal involvement.

STUDY SPONSOR

The POI participated as the non-Federal cost-share sponsor for this feasibility study by providing fifty percent of the total study costs through cash and in-kind services.

STUDY PURPOSE AND SCOPE

The purpose of this study is to determine the feasibility of deepening the existing navigation channels between the POI and the Gulf of Mexico. An August 2002 reconnaissance report recommended continuing the feasibility phase of deepening the Commercial Canal, portions of the Gulf Intracoastal Waterway (GIWW) and Freshwater Bayou (FWB) from -12-feet MLG (-13.8 NAVD88) to -20-feet NAVD88 from the POI to the Gulf of Mexico. The POI limited the study scope to a maximum authorized depth of -20-feet NAVD88.

The limits of the proposed project extend into Vermilion Parish, which is beyond the jurisdiction of the POI. Thus, the Louisiana Department of Transportation and Development (LADOTD) agreed to act as the non-Federal sponsor for construction of the proposed project.

The scope is to develop and evaluate measures to improve navigation access from the POI to the Gulf of Mexico, improve and maintain the current state of the environmental resources, and to minimize any future marsh degradation.

Economic studies considered the influence of worldwide offshore oil and gas production, but especially that in the Gulf of Mexico region. Engineering and environmental studies were limited to the immediate areas that would be physically affected or influenced, by construction and maintenance activities.

PROJECT LOCATION/CONGRESSIONAL DISTRICT

The study area is bounded by the cities of Lafayette and New Iberia, to the north; the Atchafalaya River to the east; the Vermilion River and FWB to the west; and the Weeks Bay/Vermilion Bay complex and the Gulf of Mexico to the south. Major communities in the study area include New Iberia, Lafayette, Jeanerette, Franklin, Abbeville, and numerous smaller communities. The study area is located in Congressional Districts LA-3 and LA-7.

PRIOR REPORTS AND EXISTING WATER PROJECTS

Federal Studies

- Port of Iberia, Louisiana Navigation Reconnaissance Report, dated August 2002
- New Iberia to the Gulf of Mexico Navigation Channel, Louisiana Feasibility Study
- Intracoastal Waterway Locks, Louisiana Feasibility Report, dated November 2003
- Louisiana Coastal Area, Louisiana – Ecosystem Restoration Feasibility Study.
- Louisiana Coastal Protection and Restoration

Federal Projects

- Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana Project
- GIWW Project
- FWB
- FWB Lock By-Pass
- Mermentau Basin.

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Projects

- CWPPRA - Freshwater Introduction South of Highway 82
- CWPPRA - South White Lake Shoreline Protection
- CWPPRA – Boston Canal/Vermilion Bay Shore Protection
- CWPPRA – Four Mile Canal Terracing and Sediment Trapping
- CWPPRA – Little Vermilion Bay Sediment Trapping
- CWPPRA – Lake Portage Land Bridge
- CWPPRA – Sediment Trapping at “The Jaws”
- CWPPRA – Bayou Sale Shoreline Protection
- CWPPRA – Cote Blanche Hydrologic Restoration
- CWPPRA – FWB Bank Stabilization
- CWPPRA – FWB Wetland Protection
- CWPPRA – Pecan Island Terracing

- CWPPRA – Oaks/Avery Canal Hydrologic Restoration, Increment 1
- CWPPRA – FWB Canal Shoreline Protection Study.
- CWPPRA – Weeks Bay Shoreline Protection/Freshwater Redirection Project
- CWPPRA-Vermilion River Cutoff Bank Protection Project
- CWPPRA - Marsh Island Hydrologic Restoration Project

State of Louisiana Studies and Projects

- Commercial Canal
- Department of Natural Resources Coastal Management Division, Conditional Coastal Use Permit for maintenance dredging of the Rodere Canal, Commercial Canal and existing open-water canals extending 3,500-feet into Weeks Bay.
- Quintana Canal Cypremort Point Marsh Shore Protection
- Pecan Island Freshwater Introduction
- FWB Bank Protection
- Chenier as Tigre
- Marsh Island
- Hammock Lake
- Yellow Bayou Wetland

FEDERAL INTEREST

Navigation improvements are evaluated based on National Economic Development (NED) benefits according to the Principles and Guidelines (P&G). However, recent Congressionally mandated language expanded the guidelines for calculation of the NED. The Congressionally mandated language dated May 11, 2005 states:

SEC. 6009. OFFSHORE OIL AND GAS FABRICATION PORTS.

In determining the economic justification for navigation projects involving offshore oil and gas fabrication ports, the Secretary of the Army, acting through the Chief of Engineers, is directed to measure and include in the National Economic Development calculation the value of future energy exploration and production fabrication contracts and transportation cost savings that would result from larger navigation channels.

Under the legislation, the full monetary value of any contract awarded to the Port of Iberia for the deepwater fabrication of offshore exploration and production equipment is included in the calculation of benefits. Furthermore, any benefit using Deepwater Fabrication contracts is to be counted as a benefit for project justification regardless if work was displaced from foreign or domestic yards.

S.2 STUDY OBJECTIVES

PROBLEMS AND OPPORTUNITIES

This study focused on examining opportunities to alleviate the problems stemming from the shallow depth of water access to and from the POI by improving navigation access. Rigs and platforms designed for the shallow offshore environment were light and could

use navigation channels with the same width and depth as those used for inland waterborne commerce. New structures that economically extract the hydrocarbons from the deep-sea bottom are much larger and heavier than the traditional shallow rigs. These large structures require deeper navigation waterways to the Gulf of Mexico than shallow water rigs.

Some of the ports along the Gulf of Mexico that were traditionally leaders in shallow water rig component fabrication and rehabilitation have found themselves shut out of the deepwater market due to insufficient draft in existing navigation channels. The POI is one such port. The POI has facilities, infrastructure, and skilled labor in place for fabricating deepwater topsides, but many of the major producers will not consider bids submitted by the POI fabricators due to draft restrictions.

PLANNING OBJECTIVES

In addition to the Federal objective contained in Engineering Regulation 1105-2-111, the following specific planning objectives were developed for the POI study:

- a. Develop the most effective plan for providing deep draft access to the POI from the Gulf of Mexico.
- b. Use dredge material to beneficially restore bank line and create marsh.

PLANNING CONSTRAINTS

Planning activities are constrained by laws, policies, and regulations governing Federal water resources development projects. The following environmental and social impacts were considered:

- Avoid and minimize damages to existing healthy marsh or wetlands by disposing of any dredged material in a beneficial manner.
- Federal and state agencies are concerned with deepening and leveeing of channels because scientific literature states that the deepening of channels is often responsible for the demise of wetlands in the Louisiana coastal marshes.
- The POI requested that the channel depth not exceed 20-feet due to increased cost sharing responsibilities for projects beyond 20-feet.
- Vermilion Parish residents have expressed concerns with bank line erosion from wave wash and salinity intrusion.

S.3 ALTERNATIVES

PLAN FORMULATION RATIONALE

The plan formulation rationale is used to evaluate a range of alternatives that would satisfy the planning objectives identified previously. The POI, Louisiana Navigation Reconnaissance Report evaluated a range of alternative alignments from the POI to the Gulf of Mexico and recommended a single economically feasible alignment for further analysis, known as the FWB Alignment. In feasibility, various channel dimensions were investigated to improve navigation from the port and facilitate the construction and transportation of larger, heavier deepwater platforms to the Gulf of Mexico. A preliminary screening was performed and one channel dimension was selected for detailed analysis. The feasibility analysis evaluated several alternatives for dredge disposal.

MANAGEMENT MEASURES AND ALTERNATIVE PLANS

Several alternatives existed for routing POI vessel traffic to the Gulf of Mexico (Coastal Engineering and Environmental Consultants, Inc. 2001 and USACE August 2002). All alternatives used the existing channel, known as the Commercial Canal, and connected with the GIWW. The first alternative was to route vessel traffic west on the GIWW and south through the Vermilion River Cutoff to the Gulf of Mexico. The second alternative was to route the vessel traffic southwest through Vermilion Bay and into the Gulf of Mexico. The third alternative was to route vessel traffic east on the GIWW and south through the Lower Atchafalaya River. cursory investigations that explored the maintenance of navigation channels through Vermilion Bay and the Lower Atchafalaya River revealed that the existence of fluid mud rendered these channels inefficient and, in the case of Vermilion Bay, increased the likelihood of saltwater intrusion. The Lower Atchafalaya River route requires an increased travel distance and would likely incur added transportation delays because of existing structures. Thus, enough information existed to rule out these three alternatives from further study.

FINAL ARRAY OF ALTERNATIVES

The FWB Alignment incorporates four existing channels – Commercial Canal, west on the GIWW and then south on FWB to the Gulf of Mexico – in order to reduce costs. Vessel dimensions are used to determine both depth and width of a navigation channel. Several proposed channel dimensions were evaluated based on current traffic patterns and projected vessel sizes based on traffic analysis prepared for the USACE. It was determined that the 150-foot channel would adequately serve the majority of vessel traffic and therefore, was the maximum channel width evaluated.

Channel design depths under consideration are 16, 18, and 20-feet NAVD88, plus 3-feet of advanced maintenance and overdepth dredging. The shallower depths (16' and 18') would not accommodate the larger vessels required to transport deepwater topsides and

jackets. Additionally, some vessels would be restricted to 1-way traffic in their use of the modified channel.

In response to the marsh loss and erosion in the study area, the USACE and other resource agencies concluded that all dredged material excavated from the inshore channels for the construction and maintenance of this project would be confined behind rock dikes and used to reestablish the bank line of the eroding channels. Any material not in the confined bank line disposal area would then be used for wetland restoration in broken marsh areas and shallow open water areas.

COMPARISON OF ALTERNATIVES

An incremental analysis was conducted on alternative channel depths. The selection of the channel depths is based on the size of the deepwater fabrication topsides that POI is projected to win. The weight of the topside itself is the fabrication weight. However, additional components are added to the topsides for a combined installed or load-out weight, which ultimately determined the channel sizes that were evaluated. Using installed weights, the 16-foot channel would accommodate topsides of 9,000 tons or less, 18-feet would accommodate 12,000 tons or less and the 20-foot channel would accommodate 15,000 tons or less.

Total construction cost is estimated to be \$203 million for the 20-foot channel, \$179 million for the 18-foot channel, and \$156 million for the 16-foot channel, which would be spent over a 5-year period.

KEY ASSUMPTIONS

An analysis of the worldwide petroleum reserves along with estimates of future production by foreign and domestic companies over a 50-year period was developed. According to various studies, shallow water oil exploration is in steady decline and the trend is expected to continue for the near future. Clearly, the focus for future oil exploration and production has shifted to the deeper waters of the Gulf of Mexico and West Africa.

With the recommended plan and No Action Plan, the U.S. would have a 100 percent market share of Gulf of Mexico topsides. In the without project conditions, that U.S. share would be divided among the Big Four/Big Three fabricators that are eligible to bid because of sufficient water depth. Note that at the time of this report, one of the Big Four fabricators is in the process of purchasing another of the Big Four fabricators. The basic assumption for without project conditions is that the POI would not be able to participate as a prime contractor in any of the projected deepwater offshore topsides fabrication projects due to depth restrictions.

Since there is uncertainty in estimating the size of the GOM market, we used multiple scenarios representing a range of possible values. Therefore, in addition to the Infield

estimate of the GOM market, two estimates based on the MMS low forecast and MMS high forecast are incorporated into the overall analysis.

Over the entire 50-year forecast period, it was projected that 57 production platforms would be developed in the Gulf of Mexico using the Infield projection. This equates to 90 platforms using the MMS high projection and 56 platforms using the MMS low projection. The POI's share of the U.S. total market under with project conditions was estimated using an average and maximum number of annual production hours. Then several market scenarios were evaluated for deepwater production in addition to the continuing shallow water topside work already assumed. For the with project conditions using the Infield GOM projections, the POI is assumed to attract a maximum of 14.25 deepwater topsides (25% market share) and a minimum (assuming the worse case of all scenarios) of 7.33 deepwater topsides (12.9% market share), between 2012 and 2052. Correspondingly, using the MMS high GOM projections results in a higher maximum and minimum and using the MMS low GOM projections result in a slightly lower maximum and minimum.

The following environmental assumptions were considered:

- Avoid and minimize damage to existing healthy marsh or wetlands by disposing of any dredged material beneficially.
- Deepening and leveeing of channels is often responsible for the demise of wetlands in the Louisiana coastal marshes.
- Residents have expressed concerns with bank line erosion from wave wash and salinity intrusion.

RECOMMENDED PLAN

The plan that reasonably maximizes net contributions to economic development is designated as the NED Plan. Due to the uncertainty of projections of both the GOM market and the POI market share, a scenario approach was taken to evaluate the project benefits. However, this resulted in seventy-two scenario combinations of projected outcomes when considering both the GOM market and POI's resulting market share for deepwater topsides. Therefore, we selected the mid-point of the range of the various scenarios and identified the plan with the maximum net benefits for that mid-point condition. We analyzed two cases using the mid-point of the scenarios, one using the average of the Infield and MMS high GOM market forecast and one using the MMS high GOM market forecast by itself. In looking at the mid-point of the full range of scenarios when using the average of the Infield and MMS high GOM data, the results demonstrate that the 20-foot channel maximizes the net benefits. In looking at the mid-point of the range of scenarios using the MMS high GOM market, the results also demonstrate that the 20-foot channel maximizes the net benefits. Since recent information suggests that even the MMS high GOM market forecast may be low, this leads to the outcome of selecting MMS high for the GOM forecast, as MMS high reflects a larger market size

compared to the Infield / MMS high average, and then utilizing the mid-point of the range of data for the POI market share scenarios. Therefore, the recommended plan is the 150-foot wide by 20-foot deep channel, with net benefits of \$7,724,000 and a benefit to cost ratio of 1.5.

The FWB Alignment addresses the primary planning objective of providing improved navigation access for existing and future deepwater oil and gas production platforms at the POI. The lengths of the proposed GIWW, FWB and bar channel and Commercial Canal are 20 miles, 18 miles, 7.5 miles, and 7.5 miles respectively, with an additional 7 miles through the Port of Iberia itself. The least-cost environmentally acceptable method of enlarging the channels to 20-foot deep and 150-foot wide, while disposing of dredge material, was developed. Dredged material would be used to reestablish the bank line, create marsh, and nourish the shoreline resulting in net positive environmental impacts.

The true NED plan might exceed the 20-foot depth; however, this study is limited to the 20-foot alternative. The Locally Preferred Plan (LPP) identified for this feasibility report is the 150-foot wide by 20-foot deep alternative. The first cost to construct the project is estimated to be \$203,000,000, which includes dredging costs, rock dike construction costs, swing barge installation costs, real estate acquisition costs, and pipeline relocation costs. The operation, maintenance, repair, rehabilitation, and replacement (OMRR&R) for the recommended plan is estimated at \$3,699,000, with the OMRR&R on the existing channel estimated at \$1,068,000, resulting in the net average annual cost of OMRR&R at \$2,631,000.

The requirements of Section 404(r) of Public Law 92-500, as amended, have been met.

SYSTEMS/WATERSHED CONTEXT

The Louisiana Coastal Area (LCA) team was consulted throughout the study process. The LCA near-term course of action does not have any restoration features in the immediate vicinity of the project. The goals associated with the LCA Ecosystem Restoration Plan (LCA Plan) are to reverse the current trend of degradation of the coastal ecosystem and maximize the use of restoration strategies throughout coastal Louisiana through:

- Ecological restoration of healthy, productive, and diverse coastal habitats within critical, high-priority coastal areas
- Enhanced sustainability of critical, high-priority areas within the LCA that have essential for and function of the natural ecosystem
- Integrated restoration program that results in multiple benefits not solely for wetlands, but for communities, industries, and natural resources of the coast

The only foreseeable impact to the LCA from the POI recommended plan would be a positive impact resulting from the disposal of dredge material in the shallow water inter-

tidal zone on the west side of FWB. This material would be kept in the littoral drift and deposited up and down the coast, thus mimicking the natural building of the Chenier Plains of coastal Louisiana.

ENVIRONMENTAL OPERATING PRINCIPLES (EOP)

Team members representing various Federal and state resource agencies were invited to actively participate and take ownership in the navigation study early in the process. Invoking the EOPs early in the study process supported National Environmental Policy Act (NEPA) compliance and promoted public acceptance toward the feasibility study. Inviting the resource agencies and stakeholders to be actively involved in the decision making process during the entire plan formulation process allowed for early resolution of some of the controversial issues of the project hence making the review process smoother.

Identification of channel alignment and dredge material disposal was accomplished with the help of various agency participants as well as stakeholders to ensure a plan was pursued that would ensure balance and synergy among human development activities and natural systems. The entire dredge material disposal plan was considered precedent setting by the resource agencies and the majority of the public involved in portions of the study process. As a result, the project delivery team (PDT) recognized the interdependence of life and the physical environment and incorporated this relationship into the study process for the best possible outcome. With involvement from individuals outside of the USACE, the environmental consequences related to deepening existing navigation channels allowed a win-win alternative to be identified early in the study process. Existing data was used to exclude unreasonable alternatives, thus minimizing study time and cost.

The recommended plan meets the majority of the sponsor and stakeholder needs while fully engaging nearly all of the EOPs to culminate in a positive environmental output. The EOPs are consistent with NEPA, the Army's Environmental Strategy with its four pillars of prevention, compliance, restoration and conservation, and other environmental statutes and Water Resource Development Act that govern USACE activities.

INDEPENDENT TECHNICAL REVIEW

The Mobile District of the USACE performed Independent Technical Review (ITR) of the draft main report, DEIS, and all supporting appendices.

S.4 EXPECTED PROJECT PERFORMANCE

PROJECT COSTS

A summary of the implementation costs of the recommended plan is presented in **table S-1**, and a summary of the operation and maintenance costs is presented in **table S-2**. The figures presented have been rounded for reporting convenience.

Table S - 1
Summary of Implementation Costs
(2004 Price Levels)

Construction Cost	\$151,780,588
Pre-construction, Engineering & Design	6,198,646
Construction Management	6,720,724
Removals	21,536,506
Bulkheads	14,912,344
Real Estate	1,695,000
Fish and Wildlife Mitigation	0
Total Implementation Costs	\$202,843,808
(Rounded)	\$203,000,000

Table S - 2
Summary of Operation, Maintenance, Repair, Rehabilitation,
and Replacement Costs of the Recommended Plan
and Avoided Existing OMRR&R Costs (Benefits)
(2004 Price Levels)

<u>Annual OMRR&R Costs</u>	
Annual OMRR&R, 20 X 150-Foot Channel	\$ 3,310,000
Annual OMRR&R, Freshwater Bayou Bypass Floodgates	\$ 287,000
Annual OMRR&R, Environmental Features and Monitoring	\$ 102,000
TOTAL ANNUAL OMRR&R COSTS	\$ 3,699,000
 <u>Avoided (Benefits) Annual OMRR&R Costs</u>	
Avoided Annual OMRR&R, 12 X 125-Foot Channel	\$ 948,000
Avoided Annual OMRR&R, Freshwater Bayou Bypass Floodgates	\$ 120,000
TOTAL ANNUAL AVOIDED OMRR&R COSTS	\$ 1,068,000
 <i>Net Total OMRR&R Costs for Recommended Plan</i>	
	\$ 2,631,000

The implementation costs include the costs of the construction of the deepening and widening of the FWB Bypass Channel, FWB Channel, GIWW, Commercial Canal, and the port area; bypass channel floodgates, removals, bulkhead replacement, rock dike construction, erosion protection; the cost of the pre-construction engineering and design of the channel; the costs of managing the construction contract for the channel and associated features and the costs of acquiring additional real estate interests for the recommended plan.

EQUIVALENT ANNUAL COSTS AND BENEFITS

Table S-3 displays the recommended plan's average annual benefits and costs. None of the Deepwater Fabrication benefits listed in the table are in accordance with the P&G, since they represent work being displaced from other domestic yards. However, these Deepwater Fabrication benefits have been measured in accordance with Congressionally mandated language that directed inclusion of these benefits in the NED calculation. Note that transportation cost savings are not included in the benefits for Port activity that is unrelated to topside fabrication since those benefits could not be identified to a reasonable level of confidence.

Table S - 3
Average Annual Benefits and Costs
(2004, \$1,000, 5.125 Percent)

COSTS	
Annual Construction Cost	\$12,322
Annual OMRR&R Cost	\$3,699
Total Annual Cost	\$16,021
BENEFITS	
Deepwater Fabrication Benefits	22,678
OMRR&R Cost Savings	\$ 1,068
Total Annual Benefits	\$23,746
Net Benefits	\$7,724
BCR	1.5
Base Year	2012

COST SHARING

The first costs of the recommended plan are currently estimated to be \$202,843,808. The Federal share during construction would be \$148,303,762. The non-Federal sponsor's 10 percent share of general navigation features required during construction would be \$16,478,196. In addition, the sponsor would provide LERRD and local service facilities amounting to \$1,613,000 and \$14,912,344 respectively. For the purpose of this report, all pipeline relocations are non-compensable and thus are removals. The facility owners would be responsible for \$21,536,506 for removals. Upon completion of the project, the sponsor would be responsible for a 10 percent payback to the USACE based on total project cost. That amount would be \$14,865,196 and can be paid over a period of 30 years. The \$1,613,000 for Real Estate would be creditable towards the 10 percent after construction.

NON-FEDERAL WORK-IN-KIND

The non-Federal sponsor has expressed a desire to perform work-in-kind in order to provide the recommended plan in an efficient, timely, and cost effective manner and to satisfy a portion of the non-Federal cost share. The project feature described below is requested to be performed as work-in-kind:

(1) Design, construct, and manage the construction of the By-Pass Channel Floodgate.

The construction cost of this potential work-in-kind is estimated to be \$30,637,232. The sponsor shall be required to provide additional cash contributions to satisfy the non-Federal cost share requirement.

PROJECT IMPLEMENTATION

The Louisiana Department of Transportation and Development (LADOTD) would obtain the real estate interest in the Commercial Canal owned by the POI via a cooperative endeavor agreement with the POI. Access to the project site would be available from the GIWW, FWB, and the Gulf of Mexico. For the floodgates, the contractor may mobilize his equipment by barge westward on the GIWW and southward on FWB from New Iberia. The construction site for the by-pass channel structures is located in an isolated location adjacent to the existing FWB Lock. All construction would be performed from barge or water access.

OPERATION, MAINTENANCE, REPAIR, REHABILITATION, AND REPLACEMENT (OMRR&R)

In order to maintain the 20-foot depth in Commercial Canal, an estimated 500,000 cubic yards of material would be dredged for years 5 and 10 after construction completion; 400,000 cubic yards for year 20 after construction completion; and 150,000 cubic yards for years 35 and 50 after construction completion. The GIWW would require an estimated 550,000 cubic yards of material to be dredged in years 10, 25, and 40. The FWB channel would require an estimated 480,000 cubic yards of material to be dredged in years 10, 25, and 40. The FWB Bar channel would require an estimated 2.3 million cubic yards of material to be dredged every 3 years.

KEY SOCIAL AND ENVIRONMENTAL FACTORS

All participating agencies and Vermilion Parish interests expressed concerns that deepening the channels associated with the project would increase salinity levels. The CEMVN investigated the potential for saltwater intrusion from alternatives under consideration and prepared a written report of its findings (**Appendix B**, section 3). The investigations concluded that for a channel 20-feet deep from POI through GIWW and FWB, salinity increases would be negligible and should not result in adverse impacts to water supplies, adjacent marshes, or other designated uses.

STAKEHOLDERS PERSPECTIVES AND DIFFERENCES

Coordination with Federal, state, and local agencies and the public was maintained throughout the study to assure that all aspects of the water resource problems were addressed. The following statement was provided by the Port of Iberia on 7 March 2006:

The Local Sponsor's interest in navigation improvements for the POI and Acadiana Region has been established since the early 1900s. In the early years of the port, access to the Gulf of Mexico was primarily needed for recreational and commercial fisheries but as the oil & gas industry developed and matured, the POI systematically became a "hub" for the central Gulf of Mexico offshore oil & gas fabrication and service industry. For many years the POI, Iberia Parish, Acadiana Business Community, and the State of Louisiana have invested millions of dollars of infrastructure in support of the jobs and economic well-being of the POI. Currently the POI requires significant waterway and channel improvements for it to continue to support and service the oil & gas industry as the industry moves further out into the Gulf of Mexico.

To accomplish this initiative, Congress, in the Water Resources Development Act of 2000, authorized the USACE "to conduct a study to determine the feasibility of carrying out a project for navigation, Port of Iberia, Louisiana" and this report is a corroboration of that effort. As this Feasibility Study was being accomplished, it became apparent to everyone involved that the Principals and Guidelines (P&G) that the USACE typically uses for "Commodity Handling/Shipping Ports" did not capture the true National Economic Development (NED) Benefits for an "Offshore Oil and Gas Fabrication Port" and therefore Congress enacted revised legislation and "new" language that redefined NED Benefits for Offshore Oil and Gas Fabrication Ports. That language, stated in Section 6009 of Public Law 109-13, allows the inequities of the original P&G to be corrected and truly depicts the NED Benefits of this project.

It should also be noted that the economic market share projections, in the With Project Conditions, include a scenario analysis accomplished by the consultants that may (not will) affect the market share and future awards of "deepwater" topsides. We feel that some of these scenarios are unrealistic and that important additional scenarios are ignored. The competition scenario assumes that other businesses not currently fabricating topsides will enter the market and gain market share. The problem with this assumption is the failure to consider labor and human capital assets that have accumulated in the vicinity of the current fabricators. Offshore oil and gas fabrication is highly specialized and a welder (for example) who works in a shipbuilding facility cannot just move into topside fabrication. One of the Port of Iberia's greatest assets is its' labor supply. A few years back, one of the POI's most experienced fabricators in the Gulf, bought a facility in Lake Charles, LA that had 40 foot water depth at the fabrication yard, in an attempt to overcome the depth restrictions at the Port of Iberia. After securing a contract based on prior performance, the fabricator was unable to assemble a labor

force at Lake Charles that would allow them to complete the project within a competitive budget. The fabricator lost money on the project and closed down the yard shortly thereafter. Accordingly, we feel that additional competition in this highly competitive and specialized market is unlikely. Also competition and the availability of EPC contracts have historically existed in the POI market and when a “historical” 25% market share is projected for the With Project Conditions, then competition and EPC contracts are already included in the numbers.

In addition, scenarios that are not in the analysis should include national security considerations and the various projections that the market might take based on the price of oil and gas on the world market. Virtually all of the projections that are available were based on \$18 to \$30 a barrel oil. We feel that it is more likely that oil will reach \$100 a barrel before it again falls to \$18 and/or \$30 a barrel. These are scenarios both of which would increase demand for Gulf oil and gas and subsequently topsides and result in increases to the projections of the market that are used in the Feasibility Report. There are three projections in the Economic Appendix of the Feasibility Report: MMS high, MMS low, and Infield.

- MMS low (\$18 per barrel) and high (\$30 per barrel) projections for topside demand are based on a 1996 projection, which does not take any of these additional factors (above) into account. The USACE bases their low and high estimates upon a 90% confidence interval around the mean estimate of undiscovered petroleum reserves in the GOM under federal waters. On its web site (<http://www.mms.gov/revaldiv/MMS%2096-0034.htm>), the MMS says, of the 1996 *An Assessment of the Undiscovered Hydrocarbon Potential of the Nation's Outer Continental Shelf*; **“This is not the current National Assessment but has been retained for historical information.”**
- The Infield projection, which was obtained by the USACE, through its economic consultant GEC, attempts to predict for 50 years the amount of “deepwater” topsides that will be fabricated for the Gulf of Mexico. In doing so, an internal report by Infield was used to develop the market predictions included in the report. The Local Sponsor and the Corps were not allowed to review the data sets that were used in Infield’s report due to a “confidentiality” conflict and therefore, were unable to verify its validity or accuracy. Infield’s projections also do not include any increases in the price of oil and gas in their 50-year outlook.

It is the position of the Local Sponsor that using the mean number of platforms actually placed on the Gulf deepwater over the last five years is a more reasonable way to project the future. The assumptions are transparent here and they are based on actual market conditions. The Deepwater Royalty Relief Act was passed in 1995 and was fully in effect influencing the market by 2000. Infield’s table 6-4 (page 52) is redone below starting with the five years 2000-2004. The table assumes that the average number of deepwater installations over the five years (3.6 rounded to 3.5) will continue to be the annual average between 1012 and

2050. Since these five years occurred when oil was in the \$30+ per barrel and prices are now in the \$60+ per barrel, this would seem to us to be a reasonable assumption. This projection results in 136 topsides projected for 2012-2050 not 57 as projected by Infield. A 25% share of these for the Port of Iberia is 34, not 14 which would increase all projections by a multiplier of 2.43.

Because of these factors (above), the stakeholder's perspective is that the MMS high projection is still a very conservative estimate and of the estimates contained in the Feasibility Report, this is the only one that should be used!

Also in the Economic Appendix of this report, the USACE bases its economic projections for fabrication contracts for "deepwater" topsides on an assumption that no major world markets can be expected to offer substantial new opportunities for POI fabricators. The POI has disputed this assumption all along and has cited many instances where this assumption is incorrect. Proof toward the POI's position is verified by the fact that recently Dynamic Industries, Inc., a POI fabricator, was awarded a \$150 million dollar contract from Cabinda Gulf Oil and Gas Company for two offshore platforms and pipelines for the Banzala Lago Development in Angola (The Daily Advertiser dated 08/12/05).

Also, the transportation cost savings (TCS) are not included in this revised report even though they were included in the 2005 Draft Feasibility Study. It is agreed upon by most involved in this economic analysis that a 20-foot channel would definitely allow for larger vessels and commodity transports would contribute transportation cost savings. Due to the inability to "absolutely" quantify them, they were eliminated from the benefit calculations. Therefore, it is the POI's opinion that the Benefit Cost Ratios (BCR) that are being used throughout this report to justify the project are extremely conservative and do not include the entire international market sector, do not include the value of any transportation cost savings and do not offer a true projection of the future market condition.

Because of the time constraints of this project and the minimum requirement of WRDA to only have a BCR greater than one, the POI has agreed to allow this Feasibility Study Report to go unchanged, but would like the reviewer of this document to be aware that it is the opinion of the Local Sponsor that the BCR included in this report is very conservative and should be much higher.

Units	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Australasia	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
East Asia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eastern Europe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Latin America	3	2	2	1	2	3	4	4	3	4	4	2	1	1	2	3
Middle East	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
North Africa	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0
North America	2	4	2	5	5	1	1	4	3	4	3	4	3.5	3.5	3.5	3.5
NWECS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South & East Africa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South East Asia	0	1	0	2	0	0	2	2	5	0	1	0	1	2	3	2
Southern Europe	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
West Africa	0	1	0	2	3	4	3	6	5	2	3	4	3	3	3	2
Grand Total	5	8	4	10	10	8	12	16	18	11	13	10	9	10	12	11

Units	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025		25-29	30-34	35-39	40-44	45-49
Australasia	1	1	0	0	0	0	1	0	0	0		0	0	1	0	0
East Asia	0	0	0	1	0	0	0	0	0	1		1	1	0	0	0
Eastern Europe	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
India	1	0	0	0	0	0	1	2	1	0		1	0	0	0	0
Latin America	3	3	2	2	3	3	2	2	3	2		11	2	4	6	3
Middle East	0	0	0	0	1	0	0	0	0	0		1	0	0	0	0
North Africa	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
North America	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		17.5	17.5	17.5	17.5	17.5
NWECS	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
South & East Africa	0	0	0	0	0	0	0	0	0	0		0	0	0	0	0
South East Asia	1	2	2	1	0	1	0	1	0	2		4	2	6	3	3
Southern Europe	0	1	0	0	0	0	0	0	0	0		0	0	0	0	0
West Africa	2	4	1	2	2	3	2	4	2	0		3	10	2	1	2
Grand Total	13	16	10	11	11	12	11	14	11	10		46	40	38	35	33